UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,284	10/09/2003	Ivan Ban	029300.52141US	2900

23911 7590 02/22/2007
CROWELL & MORING LLP
INTELLECTUAL PROPERTY GROUP
P.O. BOX 14300
WASHINGTON, DC 20044-4300

EXAMINER	
UNDERDAHL, THANE E	
ART UNIT	**PAPER NUMBER**
1651	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	**Application No.** 10/681,284	**Applicant(s)** BAN ET AL.
	Examiner Thane Underdahl	**Art Unit** 1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on *29 November 2006*.
2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,5,6 and 8-19* is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1,2,5,6 and 8-19* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☒ All b)☐ Some * c)☐ None of:
1.☒ Certified copies of the priority documents have been received.
2.☐ Certified copies of the priority documents have been received in Application No. _____.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date *11/29/2006*.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election of Species Remains in Effect

The examiner wishes to remind the applicant that the election of species filed on 7/14/2006 remains in effect for examination of these amended claims. The elections were as follows:

Initial Aqueous Phase: an aqueous solution of a natural mixture of conjugated estrogens from pregnant mares' urine already depleted in phenolic constituents.

Non-conjugated Lipophilic Compound: non-conjugated flavonoids.

Extracting Agent: Ethyl Acetate.

Response to Applicant's Amendments

Claim Rejections - 35 USC § 112

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Applicant's arguments, see response, filed 11/29/2006, with respect to rejection of claims 1, 2 and 6 under 35 U.S.C § 112, 2nd paragraph have been fully considered and are persuasive. The rejection of claims 1, 2 and 6 under 35 U.S.C § 112, 2nd paragraph has been withdrawn in view of applicant's amendment.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Applicant's arguments, see response, filed 11/29/2006, with respect to the rejection of claims 1-6 under 35 U.S.C § 102(b) over Turner et al. with support have been fully considered and are persuasive. The rejection of claims 1-6 under 35 U.S.C § 102(b) has been withdrawn in view of applicant's amendment.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Applicant's arguments filed 11/20/2006 of the rejection of claims 7-12 and 15-18 under 35 U.S.C § 103 over Turner et al. in view of Wang et al. with support have been fully considered but they are not persuasive.

The applicant argues that their invention does not require the addition of salt in the extraction step (applicant's argument page 7). However in the process of Turner et al. the addition of salt is optional as taught in the phrase "preferably saturated with a neutral salt" (col 4, lines 41 and 42). M.P.E.P. § 2123 states, "A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, including nonpreferred embodiments." This means that the teachings of the reference are not limited to its examples. Therefore it is not necessary for the method of Turner et al. to add salt to the aqueous extract since they teach that it is optional. In the method of Turner et al. they teach that the conjugated estrogens should remain in the aqueous phase (Step F, lines 55-74). Wang et al. teach that the salt is added to the mixture to lower the solubility of the conjugated estrogens in the aqueous phase (page 2, lines 22-29). Therefore in the invention of Turner et al. in view of Wang et al. it would be advantageous and one would be motivated to remove the salt from the extraction procedure and thus improve the solubility of the conjugated estrogens in the aqueous phase.

Turner et al. continue to teach that the separation of the conjugated estrogens form the non-conjugated estrogens is achieved by using an organic solvent "that is a non-solvent for conjugated estrogens but which is a solvent for free estrogenic material" (col 4, lines 45-47). One of ordinary skill in the art would recognize that the non-conjugated lipophilic compounds by their hydrophobic (lipophilic) nature would partition into the non-polar phase in a liquid-liquid extraction and that the conjugated estrogens with their hydrophilic hydroxyl-groups would partition into the aqueous phase in the absence of salt as supported by Wang et al. (page 2, lines 23-27). Therefore since Wang et al. teach the use of ethyl acetate as a water-immiscible, non-polar solvent for used in the extraction of estrogens from PMU it would be obvious to use this as the solvent in the process of Turner et al. who requires an organic solvent that is a non-solvent for conjugated estrogens but a solvent for free estrogenic material since conjugated estrogens in the absence of salt are have reduced solubility in non-polar organic solvents as supported by Wang et al. (page 2, lines 23-27).

The applicant continues to argue "the aim of the present invention is neither the separate recovery of free estrogenic material nor the extraction of conjugated estrogens from PMU by liquid-liquid extraction" (applicant's argument page 7). And the claims are "directed to the removal of undesired non-conjugated lipophilic compounds, in particular those derived from ingested plants (e.g.....non-conjugated flavonoids)" (applicant's argument page 7). However claim 1 state "A method for obtaining a natural mixture of conjugated equine estrogens depleted in non-conjugated lipophilic compounds". The method of Turner et al. in view of Wang et al. does obtain conjugated estrogens without flavonoids since they show that a liquid-liquid extraction with ethyl acetate will remove flavonoids as supported by Hurst et al. (cited in previous action). One of ordinary skill in the art would recognize that the non-polar non-conjugated flavonoids would partition into the ethyl acetate as supported by Hurst et al. and as such would be removed from conjugated estrogens in a organic/aqueous liquid extraction. Therefore as the claims are written the process of Turner et al. in view of Wang et al. define the same process as describe in the claims, which is the obtainment of conjugated equine estrogens from PMU absent non-conjugated lipophilic compounds.

Since the process of Turner et al. in view of Wang et al. renders obvious claim 1, it follows that the rejections of the claims 11-12 and 15-18 remain as well. These claims are to the pH (claims 11-12) and volume ratio of the process (claims 15-18).

Applicant's argument that the claims "are directed to the removal of undesirable non-conjugated lipophilic compounds, in particular those derived form plants" (applicant's argument page 7) are not commensurate with the scope of the claims. The claims state PMU and are silent about plant derived lipophilic compounds.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

> invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, 5, 6, 8-12 and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turner et al. (U.S. Patent # 2519516) in view of Wang et al. (WO 01/27134) as supported by Klaassen et al. (Casarett and Doull's Toxicology, April 2001) and Hurst et al. (Methods of Analysis for Functional Foods and Nutraceuticals, 2002) with additional support necessitated by amendment from the Merck index and Neeb et al. (J. Phys. Chem. A, 1998).

Claims 1, 2, 5, and 6 are drawn to a method of extracting estrogen from an aqueous solution via a liquid-liquid extraction with ethyl acetate.

Turner et al. teach a method to extract estrogens from pregnant mare urine (PMU) that uses a liquid-liquid extraction of PMU to obtain conjugated estrogens with a solvent that is, at most, only slightly miscible in water. (Turner et al. col 4, line 30-75, also see the Figure and Example 1 in the patent). Also it is noted that step (b) of claim 1 is optional and as such does not limit the scope of the claim since it is not imperative to the operation of the invention (M.P.E.P. § 2111.04).

Turner et al. teach the concentration of the unprocessed PMU sample via evaporation. Turner et al. does not specifically teach that the samples are already depleted in phenolic urine contents. However, a person of ordinary skill in the art would recognize that phenol, and cresols and dihydro-3,4-bis[(3-hydroxyphenyl)methyl]-2-(3H)-furanone (**HPMF**) are volatile compounds that will evaporate with water during step 1 of the procedure of Turner et al. Therefore Turner et al. implicitly meets the limitation of claim 1 step a(i). See (MSDS "phenol" Physical and Chemical Properties and ICSC "m-cresol" and "p-cresol" Routes of Exposure as well as Neeb, HPMF Volatility in a vacuum, page 6781, Figure 5).

The method of Turner et al. continue to teach the extraction of free estrogens with a solvent such as benzene.

The extraction process where Turner et al. separate the non-conjugated from the non-conjugated estrogens does implicitly teach that the non-conjugated lipophilic compounds are separated from the conjugated estrogens. However, a person of ordinary skill in the art would recognize that the fundamental property of any lipophilic compounds are hydrophobic and as such are more soluble in organic solvents than in water and will partition into the hydrophobic organic solvent upon extraction.

Claims 7-10 are drawn to ethyl acetate as the extraction solvent in the method of claim 1. Claims 11 and12 are drawn to the pH of the solution in the aqueous solution in step (a) of claim 1. Claims 15-18 are drawn to the volume ratio of ethyl acetate to water in the liquid-liquid extraction.

Turner et al. teach a method to extract estrogen from PMU using a liquid-liquid extraction that in step 4 requires a hydrophobic solvent that is a "non-solvent" for conjugated estrogens. Turner discloses solvents such as benzene but does not specifically disclose the non-polar solvent ethyl acetate. This is taught by Wang et al., who discloses a method for a liquid-liquid extraction that use ethyl acetate to extract PMU (Wang et al. page 2, lines 15-30). However in the document by Wang et al., they teach the addition of salt to the aqueous phase to lower the solubility of the conjugated estrogens in the water layer (page 2, line 24-26). One of ordinary skill in the art would recognize that without the addition of salt as in the method of Turner, the conjugated estrogens would remain in the aqueous layer since they are more soluble in this phase which is taught by Klaassen et al. (page 254 col 1, paragraph 1 and 2). One of ordinary skill would also recognize that ethyl acetate is an effective non-polar solvent for the separation of phenolics and flavonoids and other hydrophobic compounds from water soluble compounds such as conjugated estrogen as taught by Hurst et al. (page 228, line 3). So it would have been obvious to modify the method of Turner et al. by using the non-polar solvent ethyl acetate as his hydrophobic “non-solvent” for the liquid-liquid extraction of conjugated estrogens from PMU. The motivation is provided by Turner and the reasonable expectation of success by Wang et al. with support form Klaassen et al.

Wang et al. also teaches the limitations of claims 11-12, that claim 1(step A) have a pH between 4-12 (renders obvious claim 11) or between 4-7 (renders obvious claim 12). This is taught by Wang et al. who teach that the pH of the liquid-liquid extraction step with ethyl acetate can range from pH 7 to 9 (page 4, line 20).

Wang et al. continues to teach the limitations of claims 15-18 by stating that the ratio of organic solvent to aqueous solution is in the range 1:1 to 8:1 and preferably 1:1 to 6:1 (page 22, line 22). One of ordinary skill in the art would recognize that liquid-liquid extractions could be repeated to obtain higher yields of product. Also it is noted, as above, that step (b) of claim 1 is optional and as such does not limit the scope of the claim since it is not imperative to the operation of the invention (M.P.E.P. § 2111.04).

Since Wang and Turner share the same goal and many of the methods steps to isolate conjugated estrogens from PMU via liquid-liquid extraction, it would have been obvious to someone skilled in the art to modify the method of Turner et al. with the solvent and pH parameters of Wang et al. The motivation is provided by Wang et al. who mentions that the solvents recommended by Turner et al. (Step F in figure) such as benzene are not suitable for pharmaceutical development (Wang page 1, line 18). The reasonable expectation of success is provided by Wang et al. and Turner et al. both of whom extract conjugated estrogens from PMU with a liquid-liquid extraction. Therefore, the invention as a whole would have been prima facie obvious at the time of filing and Therefore the references listed above renders obvious claims 1, 2, 5, 6, 8-12 and 15-18.

Applicant's arguments filed 11/20/2006 of the rejection of claims 13 and 14 under 35 U.S.C § 103 over Turner et al. (U.S. Patent # 2519516) and Wang et al. (WO 01/27134) as supported by Klaassen et al. (Casarett and Doull's Toxicology, April 2001) and Hurst et al. (Methods of Analysis for Functional Foods and Nutraceuticals) as applied to claims 1, 2, 5, 6, 8-12 and 15-18 above and in further view of Fishman et al. (Steroids, 5(3) 1965) as supported by Nendza (Structure-Activity Relationships in Environmental Sciences, 1998) have been fully considered but they are not persuasive.

The applicant argues that the combination of Turner et al., Wang et al. and the supporting reference above do not obviate claim 12. The applicant is invited to see the obviousness rejection of claim 12 above. Also the applicant argues that there is a lack of motivation and for one of ordinary skill in the art to combine these refernces to render obvious claims 13 and 14. However absent argument to the contrary the rejection stands.

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Turner et al. (U.S. Patent # 2519516) and Wang et al. (WO 01/27134) as supported by Klaassen et al. (Casarett and Doull's Toxicology, April 2001) and Hurst et al. (Methods of Analysis for Functional Foods and Nutraceuticals) as applied to claims 1-12 and 15-18 above and in further view of Fishman et al. (Steroids, 5(3) 1965) as supported by Nendza (Structure-Activity Relationships in Environmental Sciences, 1998).

These claims are drawn to the liquid-liquid extraction of conjugated estrogens from PMU using ethyl acetate where the aqueous phase (PMU) has a pH value from 4.0 to 6.0 or more specifically a pH range from 4.7 to 6.0.

Turner et al. with Wang et al. and support teach that conjugated estrogens can be isolated with ethyl acetate in a liquid-liquid extraction by adjusting the pH of the aqueous layer from 7-9 (Wang et al. page 4, line 20). But neither teaches a pH between 4.7 to 6.0. This is taught by Fishman et al.

Fishman et al. show that a conjugated estrogen can be extracted from an organic solvent with an aqueous buffer at a pH of 4.5. This shows that conjugated estrogens are more soluble in the aqueous solution at pH 4.5 then in the organic solution. A person of ordinary skill in the art would recognize that if the conjugated estrogen is more soluble in the aqueous phase at pH 4.5, then in a water/organic liquid extraction with a non-polar solvent, the conjugated estrogen will remain in the aqueous phase, while the less polar contaminants will migrate into the organic phase. Also that same artesian would recognize as the pH lowers, the logP of any unionizable lipophilic compounds will increase as taught by Nendza (page 36, Figure 1.7). Meaning that as the pH decreases, the solubility of lipophilic compounds in water decreases, and the more likely these compounds are to separate into the organic phase of a liquid-liquid extraction. Therefore it would have been obvious to someone skilled in the art to decrease the pH of the aqueous solution to separate conjugated estrogens from non-conjugated lipophilic compounds. It would therefore have been obvious for the person of ordinary skill in the art to lower the pH of the aqueous phase in the method of Turner et al. to separate conjugated estrogens from non-conjugated lipophilic compounds. The motivation is provided by Nendza and Fishman who show that decreasing the pH of the aqueous solution to 4.5 will decrease the solubility of the non-conjugated lipophilic compounds in water while retaining the conjugated estrogens. Fishman who successfully performed the extraction of conjugated estrogens from an aqueous solution provides the reasonable expectation of success.

Furthermore one of ordinary skill in the art would recognize that pH is a result effective variable in liquid-liquid separations. Absent any teaching of criticality by the applicant concerning the pH values listed in claim 13 and 14 it would be *prima facie* obvious that one of ordinary skill in the art would recognize that the pH is a result effective variable which is a matter of routine optimization for this liquid-liquid separation to adjust the solubility of conjugated estrogens in the aqueous phase (M.P.E.P. § 2144.05 II).

Therefore the references listed above continue to render obvious claims 13 and 14.

Rejection of New Claim 19

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 19 is rejected under 35 U.S.C. 103(a) as and new rejections of as being unpatentable over Turner et al. (U.S. Patent # 2519516) Wang et al. (WO 01/27134) as supported by Klaassen et al. (Casarett and Doull's Toxicology, April 2001) and Hurst et al. (Methods of Analysis for Functional Foods and Nutraceuticals, 2002) with additional support necessitated by amendment from the Merck index and Neeb et al. (J. Phys. Chem. A, 1998) as applied to claims 1, 2, 5, 6, 8-12 and 15-18 above and in further view of Ban et al. (U.S. Patent # 5,723,454, 1998) with support from Grotewold (The Science of Flavonoids, 2006) and Dakashini et al. (Principles and Practices in Plant Ecology, 1999).

Claim 19 is drawn to the depletion of phenolic urine contents is achieved by solid-phase extraction (**SPE**) on a non-ionic semipolar adsorption resin or on a hydrophobized silica gel. This is not taught by any of the reference used to reject claims 1, 2, 5, 6, 8-12 and 15-18 above who teach the liquid-liquid extraction of conjugated estrogens from an aqueous solution. Turner et al. teach the depletion of phenolic urine contents by a condensation step using a vacuum (Turner et al. steps B). One of ordinary skill in the art would recognize that that vacuum drying first water (Turner et al. Step B) is time consuming and energy expensive.

The method of Ban et al. teach the removal of phenolic urine contents via a semi-polar resin to obtain a mixture containing conjugated estrogens in a water miscible solvent. However Ban et al. is silent as to the fate of the flavonoids in the SPE. However one of ordinary skill in the art would recognize that the non-polar flavonoids from urine would remain on the SPE column after an aqueous was as supported by Grotewold and are soluble in methanol which is a known solvent to one of or for elution of flavonoids as supported by Dakshini et al. So one of ordinary skill in the art would recognize the end product from the SPE of Ban et al. would be a mix containing the conjugated estrogens and the flavonoids in a water miscible organic solvent which is what is a similar composition to the solution in step C of Turner et al. Furthermore the method of Turner et al. and Wang et al. will then remove the flavonoids via liquid-liquid extraction to obtain conjugated estrogens depleted in non-conjugated flavonoids.

It would have been obvious to someone skilled in the art to use the method of Ban et al. to remove the phenolic compounds by SPE instead of vacuum removal. This will create a more efficient process to obtain conjugated estrogens and remove an expensive and time-consuming step. Also one of ordinary skill in the art would recognize and be motivated to use SPE in that SPE is a more efficient way to remove phenolic compounds given the variability in vacuum drying a sample to concentration it since the evaporation of the phenolic compounds will depend on the strength of the vacuum and temperature of the sample under vacuum. Therefore, the invention as a whole would have been prima facie obvious at the time of filing and the references listed above renders obvious claim 16.

In summary no claims, as written, are allowed for this application.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

In response to this office action the applicant should specifically point out the support for any amendments made to the disclosure, including the claims (MPEP 714.02 and 2163.06). Due to the procedure outlined in MPEP § 2163.06 for interpreting claims, it is noted that other art may be applicable under 35 U.S.C. § 102 or 35 U.S.C. § 103(a) once the aforementioned issue(s) is/are addressed.

Applicant is requested to provide a list of all copending U.S. applications that set forth similar subject matter to the present claims. A copy of such copending claims is requested in response to this Office action.

CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thane Underdahl whose telephone number is (571) 272-9042. The examiner can normally be reached during regular business hours, 8:00 to 17:00 EST..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Wityshyn can be reached at (571) 272-0926. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000

Thane Underdahl

Leon B. Lankford Jr

Art Unit 1651

Primary Examiner
Art Unit 1651